

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NM-159-AD; Amendment 39-13372; AD 2003-24-03]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model CL-600-2C10 (Regional Jet Series 700 & 701) Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Bombardier Model CL-600-2C10 (Regional Jet Series 700 & 701) series airplanes, that currently requires a revision to the Airplane Flight Manual (AFM) to prohibit operations into known or forecast icing conditions under certain conditions. That AD also requires an inspection to detect damage of the wing anti-ice (WAI) ducts to determine if the external shrouds of the ducts are open or cracked, and replacement of any damaged duct with a new duct or a duct with the same part number, and an optional terminating action. This amendment requires accomplishment of the previously optional terminating action for the AFM revision and inspection. The actions specified by this AD are intended to prevent the WAI ducts from collapsing, cracking, or rupturing, which could cause leakage of hot air in the under-floor pressurized area of the fuselage when the anti-ice system is turned on. Such leakage of hot air results in insufficient heat for the anti-ice system and consequent aerodynamic degradation. This action is intended to address the identified unsafe condition.

DATES: Effective December 31, 2003.

The incorporation by reference of a certain publication listed in the regulations was approved previously by the Director of the Federal Register as of June 27, 2003 (68 FR 35152, June 12, 2003).

ADDRESSES: The service information referenced in this AD may be obtained from Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station Centreville, Montreal, Quebec H3C 3G9, Canada. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dan Parrillo, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7505; fax (516) 568-2716.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2003-12-06, amendment 39-13191 (68 FR 35152, June 12, 2003), which is applicable to certain Bombardier Model CL-600-2C10 (Regional Jet Series 700 & 701) series airplanes, was published in the Federal Register on August 22, 2003 (68 FR 50729). That action proposed to require an inspection to detect damage of the wing anti-ice (WAI) ducts to determine if the external shrouds of the ducts are open or cracked, and replacement of any damaged duct with a new duct or a duct with the same part number, and an optional terminating action for the AFM revision and inspection. That action also proposed to require accomplishment of the previously optional terminating action for the AFM revision and inspection.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comment received.

Request To Require Replacement Parts With Sufficient Strength

One commenter is concerned that the language of the AD calls for replacement of any damaged duct with a new or undamaged duct of the same part number that was previously installed; and that a replacement duct of the same part number would not be of sufficient strength to withstand the applied differential pressures it will experience. The commenter requests that the FAA mandate the replacement of a damaged wing anti-ice (WAI) duct with a stronger duct with a new part number.

The FAA acknowledges the commenter's concern. The purpose of this AD action is to supersede AD 2003-12-06, amendment 39-13191 (68 FR 35152, June 12, 2003), which provides an interim action that prohibits operations into known or forecast icing conditions when there are indications of a damaged WAI duct. That action also provides for inspections and interim replacements of damaged ducts. This new action terminates the interim actions of AD 2003-12-06 by mandating the replacement of all four WAI ducts with new WAI ducts that have new part numbers. We find that these new ducts are of sufficient strength to withstand the applied differential pressure, as requested by the commenter. We have not changed the final rule regarding this issue.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Cost Impact

There are approximately 55 airplanes of U.S. registry that will be affected by this AD.

The AFM revision that is currently required by AD 2003-12-06 takes approximately 1 work hour per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the previously required actions on U.S. operators is estimated to be \$3,575, or \$65 per airplane.

The inspection that is currently required by AD 2003-12-06 takes approximately 4 work hours per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the currently required inspection on U.S. operators is estimated to be \$14,300, or \$260 per airplane.

The new action that is required by this new AD will take approximately 48 work hours per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the new requirement of this AD on U.S. operators is estimated to be \$171,600, or \$3,120 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-13191 (68 FR 35152, June 12, 2003), and by adding a new airworthiness directive (AD), amendment 39-13372, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-24-03 Bombardier, Inc. (Formerly Canadair): Amendment 39-13372.
Docket 2003-NM-159-AD. Supersedes AD 2003-12-06, Amendment 39-13191.

Applicability: Model CL-600-2C10 (Regional Jet Series 700 & 701) series airplanes, serial numbers 10004 through 10119 inclusive; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent the wing anti-ice (WAI) ducts from collapsing, cracking, or rupturing, consequent leakage of hot air in the under-floor pressurized area of the fuselage when the anti-ice system is turned on, insufficient heat for the anti-ice system, and aerodynamic degradation, accomplish the following:

Referenced Service Information

(a) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of CRJ 700/900 Series Regional Jet (Bombardier) Alert Service Bulletin A670BA-30-007, Revision A, dated April 15, 2003, including Appendices A and B, dated March 18, 2003.

Restatement of Requirements of AD 2003-12-06, Amendment 39-13191

Airplane Flight Manual (AFM) Revision

(b) Within 48 hours after June 27, 2003 (the effective date of AD 2003-12-06, amendment 39-13191), revise the Limitations Section of the CRJ 700 AFM to include the following (this may be accomplished by inserting a copy of this AD into the AFM):

1. Anti-Ice Bleed Leak Detection Controller (AILC) Channels (see Note 1):

Flight with "WING A/I FAULT" status message on the engine indication and crew alerting system (EICAS) is not authorized, except as follows:

One may be inoperative as indicated by "WING A/I FAULT" status message on EICAS provided:

- (a) Wing Anti-Ice switch is selected OFF, and
- (b) Operations are not conducted into known or forecast icing conditions.

2. Wing/Fuselage Anti-Ice Bleed Leak Detection Loops (see Note 1):

Flight with Wing/Fuselage Anti-Ice Bleed Leak Detection Loops inoperative is not authorized, except as follows:

One loop (A or B) may be inoperative provided:

- (a) Wing Anti-Ice switch is selected OFF, and
- (b) Operations are not conducted into known or forecast icing conditions.

Note 1: This limitation supersedes the Master Minimum Equipment List (MMEL)."

Detailed Inspection and Corrective Actions if Necessary

(c) Within 150 flight hours after June 27, 2003, do a detailed inspection to detect damage of the four WAI ducts and to determine if the external shrouds of the WAI ducts are open or cracked, per the alert service bulletin.

(1) If no discrepancy is found, no further action is required by this paragraph.

(2) If any external shroud of a WAI duct is found open or cracked, before further flight, inspect the surrounding equipment and structure per a method approved by the Manager, New York Aircraft Certification Office (ACO), FAA, or Transport Canada Civil Aviation (TCCA) (or its delegated agent).

(3) If any damaged WAI duct is found, before further flight, replace the WAI duct with a new duct or a duct with the same part number (P/N) that is free of any dent, crease, or other handling damage, per the alert service bulletin.

Note 1: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Reporting Requirement

(d) Submit a report of the results of the inspection required by paragraph (c) of this AD per the alert service bulletin specified in paragraph (a) of this AD. Information collection requirements contained in this AD have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

(1) If the inspection was done after June 27, 2003: Submit the report within 14 days after the inspection.

(2) If the inspection was accomplished prior to June 27, 2003: Submit the report within 14 days after June 27, 2003.

New Requirements of This AD

Terminating Action

(e) Within 1,500 flight hours after the effective date of this AD, replace all four WAI ducts with new ducts having P/N GG670-80504-5 or -6, or P/N GG670-80312-3 or -4, as applicable, per the alert service bulletin. Replacement of all four WAI ducts terminates the requirements of this AD. After doing the replacement, the AFM revision required by paragraph (b) of this AD may be removed.

Alternative Methods of Compliance

(f) In accordance with 14 CFR 39.19, the Manager, New York ACO, FAA, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(g) Unless otherwise specified in this AD, the actions shall be done in accordance with CRJ 700/900 Series Regional Jet (Bombardier) Alert Service Bulletin A670BA-30-007, Revision A, dated April 15, 2003, including Appendices A and B, dated March 18, 2003. This incorporation by reference was approved previously by the Director of the Federal Register as of June 27, 2003 (68 FR 35152, June 12, 2003). Copies may be obtained from Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station Centre-ville, Montreal, Quebec H3C 3G9, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Note 2: The subject of this AD is addressed in Canadian airworthiness directive CF-2003-07, effective on March 25, 2003.

Effective Date

(h) This amendment becomes effective on December 31, 2003.

Issued in Renton, Washington, on November 20, 2003.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-29532 Filed 11-25-03; 8:45 am]
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